

VINOGRADOV, V.V.

Ak-Gel' Lake. Priroda 52 no.10:62-66 '63.

(MIRA 16:12)

1. Turianchayskiy gosudarstvennyy zapovednik Azerbaydzhanskoy SSR.

VINOGRADOV, V. V., akademik

Results from the 4th International Congress of Slavists and future
prospective work of the International Committee of Slavists.
Spisanie BAN 6 no.1:3-20 '61. (EEAI 10:9/10)

(International Congress of Slavists)

KUZ'MINSKIY, A.S.; RUSER, L.S.; SUNITSA, L.L.; Prinimali uchastiye:
VINOGRADOV, V.V.; VITUSHKIN, N.I.; YEVLAMPIYEV, A.I.; OSIPOV, V.B.

Apparatus with a source of gamma rays of Co⁶⁰ with 16,000 g-equivalent
of radium for radiochemical investigations of crude and vulcanized
rubbers. Kauch. i rez. 20 no.11:8-10 N '61. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber) (Gamma rays)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

VINOGRADOV, Vladimir Vladimirovich, SIMONYAN, K.S., red.; BALDINA,
N.F., tekhn. red.

[Diseases of Vater's papilla] Zabolevaniia faterova soska.
Moskva, Medgiz, 1962. 123 p.
(DUODENUM--DISEASES)

(MIRA 15:8)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

SOMOV, G.P.; VINOGRADOV, V.Ya.

Experimental study of some modifications of the indirect hemagglutination reaction in tick-borne rickettsiosis of northern Asia.
Vop. virus. 10 no.1:83-87 Ja-F '65. (MIRA 18:5)

1. Vladivostokskiy nauchno-issledovatel'skiy institut epidemiologii,
mikrobiologii i gigiyeny.

VINOGRADOV, V.Ya.

← Camera for large-scale electrophoretic studies. Lab.delo 7 no.9:
56-58 S '61. (MIRA 14:10)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut (dir. -
dotsent A.V.Kopyrin).
(CAMERAS) (ELECTROPHORESIS)

ANNAGIYEV, A.A., kand. veter. nauk; VINOGRADOV, V.Ya., mladshiy nauchnyy
sotrudnik; GLADKOV, B.A., aspirant

Problems of listeriosis. Veterinariia 41 no.1:49-53 Ja '64.
(MIRA 17:3)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy veterinarnyy
institut (for Annagiyev). 2. TSelinogradskaya nauchno-issledovatel'-
skaya veterinarnaya stantsiya (for Vinogradov). 3. Voronezhskiy
sel'skokhozyaystvennyy institut (for Gladkov).

VINOGRADOV, V.Ya.

Epidemiology of salmonellosis in Komsomolsk-on-Amur.
Zhur. mikrobiol., epid. i immun. 40 no.6:132-133 Je '63.
(MIRA 17:6)

SOMOV, G.P.; ZELENKIN, A.A.; VINOGRADOV, V.Ya.; FEDORETS, Ye.A.

Features of the occurrence of the 1959 influenza epidemic in
the Far East. Zhur. mikrobiol. epid. i immun. 31 no. 10:116-119
O '60. (MIRA 13:12)
(SOVIET FAR EAST—INFLUENZA)

VINOGRADOV, V.Ya., mayor med.sluzhby

Prevention and treatment of infectious diseases during the
navigation of ships in the tropics. Voen.-med.shur. no.2:
75-76 F '60. (MIRA 13:5)
(COMMUNICABLE DISEASES prev. & control)
(TROPICAL CLIMATE)

VAYNBERG, Mikhail Solomonovich, kand.tekhn.nauk. Prinimali uchastiye:
LOMOTIKOV, G.P., inzh.; VINOGRADOV, V.Ya., SHCHEGOLOV, K.A.,
red.; PANCHENKO, M.F., red.izd-va; LELYUKHIN, A.A., tekhn.red.

[Planning of general schemes for city sanitation] Proektirovaniye
general'nykh skhem sanitarnoi ochistki gorodov. Moskva, Izd-vo
M-va kommuna.khoz.RSFSR, 1960. 142 p. (MIRA 13:?)
(Sanitary engineering)

VINOGRADOV V. YA. (Senior Veterinary Surgeon of the Orsk Trust of
Grain Sovkhozes)

"Listeriosis of lambs with the affection of liss."
Veterinariya, Vol. 38, No. 12, December 1961, P. 27.

VINOGRADOV, V.Ya.

Effect of seasonal temperature changes on the incidence of
influenza and upper respiratory catarrh. Zhur.mikrobiol.
epid. i immun. 30 no.5:20-25 My '59. (MIRA 12:9)

(INFLUENZA, epidemiol.

seasonal factor (Rus))

(COMMON COLD, epidemiol.

same)

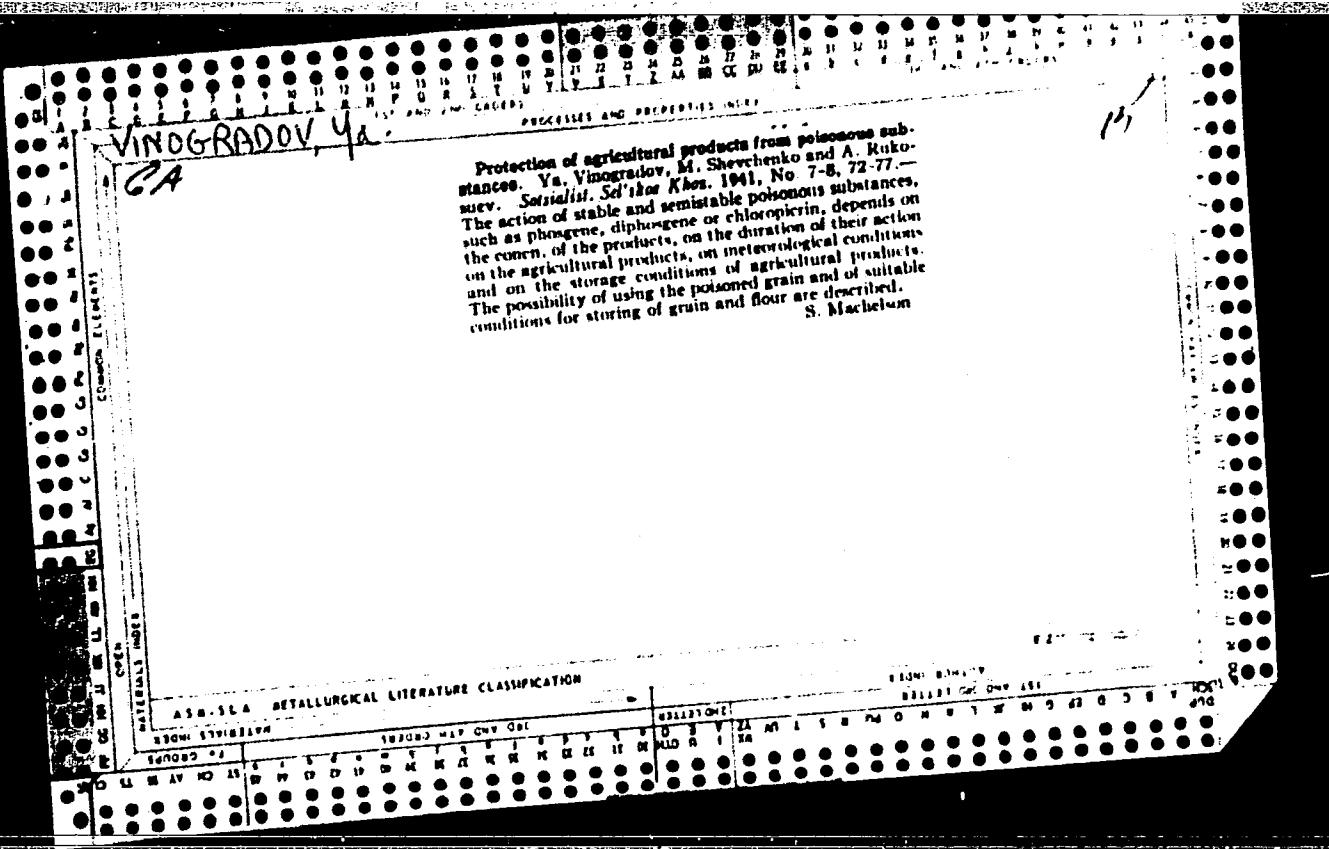
(CLIMATE,

seasonal factor in influenza & common cold

epidemiol. (Rus))

VINOGRADOV, V.Ya.; SONOV, G.P.

Use of the indirect hemolysis reaction for laboratory diagnosis of
tick-borne rickettsiosis. Lab. delo no.2:74-75 '65.
(MIRA 18:2)
1. Vladivostokskiy institut mikrobiologii, epidemiologii i gigiyeny
(direktor T.I. Ivanenko).



VINOGRADOV, Ye., inzh.

Bird-like models are in the air. Kryl. rod. 14 no. 12:32-33
(MIRA 17:2)
D '63.

L 44569-66 EWT(1)/EWP(m)/EEC(k)-2 SCTB TI/DD/GW
ACC NR: AP6030910 SOURCE CODE: UR/0209/66/000/009/0044/0047

AUTHOR: Voronin, G. (Doctor of technical sciences; Professor); Polivoda, A. 45
(Candidate of biological sciences); Vinogradov, Ye. (Engineer) B

ORG: none

TITLE: Spacecraft life-support systems ✓

SOURCE: Aviatsiya i kosmonavtika, no. 9, 1966, 44-47

TOPIC TAGS: manned spaceflight, space biology, life support system

ABSTRACT: Problems in the design, requirements, and operation of spacecraft life-support systems (storage systems, physical and chemical regeneration systems, biore-generation systems) are discussed. The daily life support requirements of a 70-kg man in space are given as: 600 liters of O₂, 2.3 kg H₂O, and 0.6—0.7 kg of food-stuffs (100—150 g of protein; 70—90 g of fat; 420—500 g of carbohydrate). Water makes up 4/5 the total weight of food rations. O₂ supplies can be stored in compressed cylinders at 500—700 atm, in a solid or near-solid state at low temperature, or in chemically bound form (superoxide compounds or in the form of H₂O₂). The advantage of superoxide systems is their simplicity and efficiency; they simultaneously yield O₂ while absorbing CO₂. The main disadvantage of such systems for prolonged spaceflights would be weight. Physical or chemical regenerations are even more complicated than storage systems and neither type would be suitable for prolonged flights.

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L 44569-66
ACC NR: AP6030910

However, their use for emergency backup is not discounted. Also, some components of these types of systems could be included in biological regeneration systems, in particular, computer controlled, algae regeneration systems which yield O₂ and food. The various parameters of algal cultivation and growth are discussed in terms of the conditions necessary for maximum productivity. Automatic control of a biological regeneration system requires the following: methods of biological investigation to elucidate parameters which most completely reflect the state of the biological specimen and to establish concrete trends in various biological processes; information in the form of signals which reflect these processes; and finally, creation of control commands for actuating devices in a biological regeneration system. The basic growth parameters of algae suspensions are discussed in terms of input data for an automatic control system. The authors conclude that a brief review of the available literature (none cited) shows that the development of life-support systems for prolonged space-flights is one of the most important problems confronting contemporary cosmonautics. [CD]

SUB CODE: 22/
06/ SUBM DATE: none/ ATD PRESS: 5079

Card 2/2 LJM

L 38124-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) CG/HW/JW/JD
ACC NR: AP6025266 SOURCE CODE: UR/0057/66/036/007/1319/1320

AUTHOR: Vinogradov, Ye. A.; Dianov, Ye. M.; Irisova, N. A.

ORG: Physics Institute im. P. N. Lebedev, Moscow (Fizicheskiy Institut)

TITLE: Measurement of dielectric characteristics of liquid nitrogen at wavelength
 $\lambda = 2.3 \text{ mm}$

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 7, 1319-1320

TOPIC TAGS: liquid nitrogen, dielectric constant, absorption coefficient

ABSTRACT: Measurements of dielectric characteristics of liquid nitrogen were made at wavelength $\lambda = 2.3 \text{ mm}$ to study the properties of solids immersed in liquid nitrogen. The liquid nitrogen was kept in a polystyrene cryostat and a Michelson interferometer was used to obtain the refraction index by measuring the monochromatic wavelength in free space and in liquid nitrogen. The transmittance T of a layer of nitrogen with thickness d was measured to determine the coefficient of absorption K from the relationship $T = e^{-4\pi k d/\lambda}$. The following results were obtained: coefficient of refraction, $n = 1.196 \pm 0.007$; coefficient of absorption, $K = (1.6 \pm 0.3) \cdot 10^{-4}$ for $\lambda = 2 \text{ mm}$, neglecting boiling of nitrogen at the walls of the Dewar. If the boiling layer at the walls is not neglected, then K can be as high as $4 \cdot 10^{-4}$. [IV]

SUB CODE: 20/ SUBM DATE: 20Nov65/ ORIG REF: 002/ ATD PRESS: 5043
Card 1/1 UDC: 537.226.1

VINOGRADOV, Ye.A.; DIANOV, Ye.M.; IRISOVA, N.A.

Short-range millimeter and submillimeter Fabry-Pérot interferometer with metal grids having a period less than the wavelength. Pis'. v red. Zhur. eksper. i teoret. fiz.
2 no. 7:323-326 0 '65. (MIRA 18:12)

1. Fizicheskiy institut imeni Lebedeva AN SSSR. Submitted
July 30, 1965.

L 6491-66 EWT(1)/EEC(k)-2/FCS(k)/EWA(h)
ACC NR: AP5027994

WR SOURCE CODE: UR/0386/65/002/007/0323/0326

62

60

8

AUTHOR: Vinogradov, Ye. A.; Dianov, Ye. M.; Irisova, N. A.

ORG: Physics Institute im. P. L. Lebedev, Academy of Sciences, SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Fabry-Perot interferometer for the short millimeter and submillimeter bands with metallic grids having periods smaller than the wavelength

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. (Prilozheniye), v. 2, no. 7, 1965, 323-326

TOPIC TAGS: interferometer, millimeter wave, submillimeter wave, microwave component, diffraction grating

ABSTRACT: The authors report the development of elements which have a periodic structure with a period smaller than the wavelength for use as mirrors in a Fabry-Perot interferometer (Fig. 1). These grids were made of parallel metal wires stretched over metal rings. One grid of the interferometer was rigidly secured, and the other could be moved slowly, with the aid of a special precision mechanism, so that both grids remained parallel to each other. The interferometer could operate both in reflection and transmission regimes. Such an interferometer has an unusually large bandwidth. Thus, a single model could be used for measurements in the entire range from 4 to 0.5 mm. The grids used had apertures (a) 100 and 50 mm, wire spacing (l) from 0.150 to 40 μ , and wire thickness (2r) from 15 to 8 μ . When operating with tungsten grids, a Q-factor of approxi-

Card 1/3

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L 6491-66

ACC NR: AP5027994

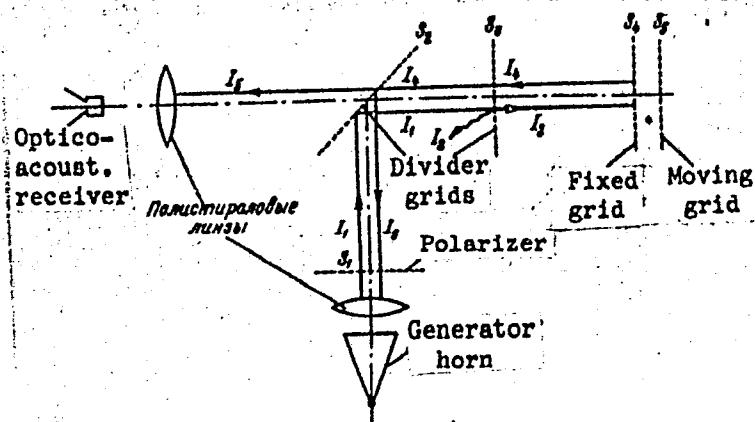


Fig. 1. Diagram of Fabry-Perot interferometer operating with reflected signal

S_i - Grids with parallel wires; I_i - radiation intensity in the beams (relative intensity distribution in the absence of resonance is $I_1 = 1, I_2 = I_3 = I_4 = 1/2, I_5 = 1/4$, and $I_6 = 1/4$).

mately 50 was obtained in the first order at $\lambda = 0.5$ mm, and up to 750 at $\lambda = 2$ mm. The energy loss and the dependence of the Q factor on the different parameters were investigated at $\lambda = 2$ mm. The loss is estimated at $< 5 \times 10^{-4}$, and the reflection coefficient of the grid is found to be $R > 0.998$. It is concluded that similar reticular elements can be extensively used in quasi-optical apparatus for the short millimeter and submillimeter bands, and can serve as a basis for the construction of

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L 6491-66

ACC NR: AP5027994

2

elements that are in some sense similar to individual waveguide parts. In addition to the described Fabry-Perot interferometer, the authors constructed also a beam-splitting device with variable splitting coefficient, and a device of the Michelson interferometer type for measurements at liquid-nitrogen temperature. Authors are very grateful to Corresponding Member A. M. Prokhorov in whose laboratory this work was performed, for continuous interest and support, and to Corresponding Member N. D. Devyatkova for help during the course of this work. Orig. art. has: 1 figure and 1 table.

[02]

SUB CODE: EC/ SUBM DATE: 30Jul65/ ORIG REF: 004/ OTH REF: 002/ ATD PRESS: 4140


Card 3/3

L 5144-66 EWT(1)/EPA(s)-2/EPF(c)/EEC(k)-2/FCS(k)/EWA(h) IJP(c) WW/GG/WR
ACCESSION NR: AP5026899 UR/0109/65/010/010/1804/1808 69
535.854 66

AUTHOR: Vinogradov, Ye. A.; Dianov, Ye. M.; Irisova, N. A. 44,55 B
TITLE: Michelson interferometer for measuring the refractive index of dielectrics 21,44,55 21,44,55
in the 2-mm band 25

SOURCE: Radiotekhnika i elektronika, v. 10, no. 10, 1965, 1804-1808

TOPIC TAGS: interferometer, dielectric material

ABSTRACT: The development of a new instrument for measuring the refractive index of low-loss dielectrics in the 2-mm band is reported; the instrument is analogous to the well-known Michelson optical interferometer. Two readings, with and without the specimen in one of the instrument arms, are taken; the flat 50-mm diameter specimen is placed between the radiating horn and the movable mirror. Standard waveguide components and polystyrene lenses are used in the interferometer. Actual values of the refractive index measured by the new instrument at a wavelength of 2.31 mm are reported for teflon, alkathene, polystyrene, plexiglass, ebony, fused quartz, common salt, and glasses; these values (from 1.4 to 3.2) are compared with the data published elsewhere. Various errors involved amount to

Card 1/2

L 5144-66

ACCESSION NR: AP5026899

44,55 3
small fractions of one percent. "The authors wish to thank A. M. Prokhorov for his
constant attention to this project." Orig. art. has: 2 figures, 2 formulas, and
2 tables.

[03]

ASSOCIATION: none

ENCL: 00

SUB CODE: OP, EM

SUBMITTED: 10Jul64

OTHER: 005

ATD PRESS: 4/34

NO REF SOV: 003

Card 2/2 Md

ACC NR: AP7000401

SOURCE CODE: UR/0386/66/004/009/0373/0376

AUTHOR: Vinogradov, Ye. A.; Irisova, N. A.; Mandel'shtam, T. S.; Prokhorov, A. M.; Shmaonov, T. A.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Resonance absorption of the V³⁺ ion in corundum at 1.21 mm wavelength

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 4, no. 9, 1966, 373-376

TOPIC TAGS: corundum, vanadium, resonance absorption, low temperature research, microwave spectroscopy, hyperfine structure

ABSTRACT: The authors report an experimental investigation of resonance absorption of the V³⁺ ion in corundum at wavelength $\lambda \sim 1.21$ mm and at liquid-helium temperature in magnetic fields from 0 to 5 kOe. The observed absorption corresponded to transitions from the lower level corresponding to the singlet state $S_{z'} = 0$ to the levels of the higher doublet ($S_{z'} = \pm 1$). The resonance absorption of the V³⁺ (~0.1%) in corundum was measured with a quasioptical feed-through spectroscope without cavity, which was constructed by the authors. The radiation source was a backward-wave tube generating an average of ~3 mW in the range from 0.83 to 1.35 mm. The microwave power was fed quasioptically to a sample placed in a helium cryostat via teflon windows in the cover. The helium cryostat could be placed between the poles of an electromagnet. Two series

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ACC NR: AP7000401

of measurements were made. In the first, the absorption line was investigated in different constant magnetic fields, including zero field, with the microwave-oscillator frequency continuously variable. In a zero field, two closely-spaced absorption lines were observed, corresponding to transitions from the lower singlet level of the V^{3+} ion to the levels of the doublet $S_z = \pm 1$. The frequencies of the transitions from the lower level to each of the doublet levels were found to be $D_1 = (247.3 \pm 0.3)$ and $D_2 = (248.9 \pm 0.3)$ GHz, and the initial splitting of the doublet was $2E = (1.6 \pm 0.6)$ GHz. The calculated coefficient of resonance absorption of V^{3+} in corundum was $\alpha > 0.3 \text{ cm}^{-1}$. The second series of measurements was made at a number of fixed frequencies with the magnetic field varied from 0 to 5 kOe. The absorption line observed in this case consisted of eight hfs components. The splitting between the singlet and the doublet, equal to 247.8 GHz, coincides within the limits of experimental error with $D = (D_1 + D_2)/2$ determined in the first measurement series. When the external magnetic field tends to zero, the distance between the outermost components yields the upper limit of the initial doublet splitting, $2E < 2.1$ GHz. The authors are grateful to V. Kh. Sarkisov, director of the Corundum Laboratory of Kirivokanskiy khimkombinat, for supplying the investigated sample. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 28Jul66/ ORIG REF: 002/ OTH REF: 005
ATD PRESS: 5107

Card 2/2

VINOGRADOV, Ye.G., kand.tekhn.nauk

Vapor spark arrester for mechanical fuel feeding systems. Der.
(MIRA 14:7)
prom. 10 no.7:13-14 J1 '61.
(Woodworking industries—Safety measures)

VINOGRADOV, Ye.G.

Improving the investigation of the causes and the recording of
industrial accidents in the veneer industry. Der. prom. 12
no.3:14-15 Mr '63. (MIRA 16:5)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova.
(Veneers and veneering--Safety measures)

VINOGRADOV, Yevgeniy Grigor'yevich, kand. tekhn. nauk; SMIRNOV, N.A.,
prof., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A.,
tekhn. red.

[Safety measures in mechanical processing of wood]Tekhnika
bezopasnosti pri mekhanicheskoi obrabotke drevesiny. Pod
obshchei red. N.A.Smirnova. Leningrad, Leningr. dom nauchno-
tekhn. propagandy, 1962. 37 p. (Bibliotekha stroitelia po
tekhnike bezopasnosti, no.4) (MIRA 16:3)
(Woodworking machinery—Safety appliances)

VINOGRADOV, Ye.G., kand.tekhn.nauk; KOVTUN, L.I., inzh.

Safety clamping device for veneer peeling machines. Der.prom.
10 no.12:25-26 D '61. (MIRA 14:12)
(Woodworking machinery--Safety appliances)

VINOGRADOV, Ye.G., Cand Tech Sci—(Lise) "Basic problems of fire
protection in ~~the lumber enterprises~~ lumber enterprises." Len, 1953. 15 pp (in of higher
Education USSR. Len Order of Lenin Forestry Institute ~~Acad~~ S.M.
Kirov), 150 copies (LL,45-53,147)

-77-

VINOGRADOV, Ye. G.

Light air-type dividers for smoke and exhaust pipes of locomotives
and steam boilers. Izbor. i rats. 3 no. 4 15-16 Ap '58. (MIRA 11:7)
(Boilers--Safety measures.)

VINOGRADOV, Ye. G.

D.

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry

Abs Jour : Referat Zhur- Khimiya, No 4, 1957, 11558

Author : Vinogradov Ye.G.
Inst : All-Union Scientific Research Institute of Marine Pisciculture and
Title : Oceanography
Hydrochemical Regimen of the Sea of Azov in 1951-1953

Orig Pub : Tr. Vses. n.-i. in-ta mor. ryb. kh-va i okeanogr., 1955, 31, No 1, 62-79

Abstract : Most sharply manifested temperature stratification was observed in July-August 1951. In July of 1952 and 1953 vertical distribution of temperature was more uniform. In 1952-1953 salinity had increased, in comparison with 1951, as a result of the runoff of the Don. During spring an oversaturation with oxygen, up to 130%, was observed throughout the entire depth; in summer the upper layers are oversaturated while at the bottom it is sharply lowered; in August 1951 O₂ disappeared in the bottom layers. Oxidability in neutral medium 2-3 mg/liter O₂. In spring during the blooming of diatoms Si is 360-600 mg/m³, and increases in summer to 1000 mg/m³. P/PO₄ in April 1951 was absent except in the eastern

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USSR/ Cosmochemistry. Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11558

part of the sea ($0\text{-}2 \text{ mg/m}^3$) and the Taganrog gulf (11 mg/m^3); in the spring of 1952 and 53 -- $9\text{-}12 \text{ mg/m}^3$; in the summer phosphates found over the entire sea. Organic P, on the average, 30 mg/m^3 in spring, 45 mg/m^3 during summer. N/NH_4 , on the average, 90 mg/m^3 in spring, 300 mg/m^3 during summer. Nitrites and nitrates were low during spring of 1951 and 53, none were found in 1952; during summer they were absent. Organic N, on the average, 670 mg/m^3 in the spring, 550 mg/m^3 in summer. Decrease in N and P in July 1953 was apparently connected with stemming of the river Don.

Card 2/2

VINOGRADOV, Ye. G.

VINOGRADOV, Ye. G.: "The selection of a system of heat supply for small cities located near large power systems." Min Higher Education USSR. Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science.)

Knizhnaya Letopis'
No 32, 1956. Moscow.

NIKITIN, Lev Ivanovich; PROKOF'YEV, Petr Sergeyevich; VINOGRADOV, Yevgeniy
Grigor'yevich; GORBACHEV, I.N., inzh.-polkovnik, retsenzent; PITER-
MAN, Ye.P., red. izd-va; PARAKHINA, H.L., tekhn. red.

[Fundamentals of fire prevention] Osnovy protivopozharnoi tekhniki.
Moskva, Goslesbumizdat, 1960. 310 p.
(MIRA 14:6)
(Fire prevention)

VINOGRADOV, Ye.I.; SHAKHNIN, N.P., red.

Device for planing lathe beds. Obn.tekh.opyt. [KLP] no.20:
6-7 '56. (MIRA 12:11)
(Planing machines)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

VINOGRADOV, Ye., inzh.

Steam curtain. Pozh.delo 6 no.4:8-9 Ap '60. (MIRA 13:11)
(Boilers) (Woodworking industries---Fires and fire prevention)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

VINOGRADOV, Ye.P.

Several problems in the construction of wooden culverts and
small bridges under narrow-gauge railroads. Torf.prom. 31 no.6:
28-29 '54. (MLRA 7:9)

1. Orichevskoye torfopredpriyatiye.
(Culverts) (Bridges--Foundations and piers)

VINOGRADOV, Yevgeniy Grigor'yevich, kand. tekhn. nauk; SHEYNOV,
I.I., red.

[Fundamental problems of safety engineering in the plywood
industry] Osnovnye voprosy tekhniki bezopasnosti v faner-
nom proizvodstve. Leningrad, 1964. 37 p. (MIRA 18:2)

ACC NR: AP7000031

SOURCE CODE: UR/0051/66/021/005/0603/0609

AUTHOR: Tsvetkov, V. N.; Vinogradov, Ye. L.

ORG: none

TITLE: Electrodynamic birefringence of liquids

SOURCE: Optika i spektroskopiya, v. 21, no. 5, 1966, 603-609

TOPIC TAGS: double refraction, optical anisotropy, liquid flow
birefringence, laminar flow birefringence, dynamic birefringence, electrodynamic
birefringence

ABSTRACT: The combined effect of magnetic and electric fields and hydrodynamic flow on the optical anisotropy, in particular the birefringence, of liquids was analytically and experimentally investigated. The analysis shows that the total effects can be fully explained on the basis of general laws governing the optics of elliptically polarized light. Formulas determining the total birefringence as the superposition of two independent anisotropies, the electrooptical and the dynamic-optical, were obtained and adapted for the case of low field strength and velocity gradients; the formulas also take into account the angle of the polarization ellipses with respect to the direction of flow, and practically coincide with the counterpart formulas deduced from the molecular mechanism by, among others, Ikeda and Mukohata (J. Mol. Biol., 5, 1962, 570, and 7, 1963, 442; J. Chem. Phys., 38,

UDC: 535.55(206,2)

Card 1/2

ACC NR: AP7000031

1963, 2839). The method was experimentally checked in two types of dynamic-optimeters described by Tsvetkov and associates (ZhFKh, 24, 1950, 994 and ZhETF, 23, 1952, 690) and Frisman (Vysokomolek. soyed., 3, 1961, 276). In the series of measurements on low-molecular substances (bromoform, α -methylnaphthalene, α -bromonaphthalene, etc.), the orientation of the electrodynamic birefringence proved to be a linear function of the square of the electric field strength, with the inclination tangent determined by the ratio - K/A (Kerr and Maxwell constants) for the given substance. The other group of substances (poly- γ -benzyl-L-glutamates in various solvents), with their high optical anisotropy and strong dipole moment, could be investigated structurally in a single experiment using the method of electrodynamic birefringence. Solutions in chloroform of various concentrations within the molecular weight range from 6×10^4 to 34×10^4 showed the same linearity of the dependence of orientation on the electric field strength, except for the change of sign at certain field-strength values. Thus, the macroscopic formulas proposed by the authors describe fully the phenomena of birefringence of liquids independently of the consideration of the molecular mechanisms such as polarity, dipolar and anisotropic members in the orientation of molecules in the electric field, direction of dipole moments in the molecule, etc. Experimental data, extrapolated for an infinite dilution, can yield information on the structural characteristics of a given substance. Orig. art. has: 11 formulas, 3 figures, and 2 tables.

SUB CODE: 20/ SUBM DATE: 01Mar65/ ORIG REF: 012/ OTH REF: 013
ATD PRESS: 5108

Card 2/2

SOY/112-58-2-2380D

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 98 (USSR)

AUTHOR: Vinogradov, Ye. P.

TITLE: Electric Thermal Pasteurizers (Elektroteplovyye pasterizatory)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Doctor of Technical Sciences, presented to the Leningr. tekhnol. in-t kholodil'n. prom-sti (Leningrad Technological Institute of Refrigerating Industry), Khar'kov, 1956.

ASSOCIATION: Leningr. tekhnol. in-t kholodil'n. prom-sti (Leningrad Technological Institute of Refrigerating Industry)

Card 1/1

VINOGRADOV, Ye.P., kand.tekhn.nauk, dotsent

Work of the Kharkov Institute for the Mechanization of Agri-culture. Nauch. zap. KHMISKH no.11 Fak. mekh. sel'khoz. 1:5-15 '58. (MIRA 14:3)

1. Direktor Khar'koskogo instituta mekhanizatsii sel'skogo khozyaystva. (Farm mechanization)

VINOGRADOV, Ye.P.

Physical principles of electric pasteurization of milk. Izv. vys.
ucheb. zav.; pishch. tekhn. no. 2:104-109 '58. (MIRA 11:10)

I. Khar'kovskiy institut mekhanizatsii i elektrifikatsii sel'skogo
khozyaystva, Kafedra elektrotehniki.
(Milk-Pasteurization)

VINOGRADOV, Ye.P., dotsent; KARASENKO, V.A., assistant

Thermoelectric laminated pasteurizer with indirect action.
Nauch. zap. KHIMSKH Fak. elek. sel'khoz. 1 no.10:111-120 '58.
(MIRA 16:7)

(Pasteurizers)

VINOGRADOV, Ye.P.

In the Kharkov Institute of Agricultural Mechanization and Electrification. Mekh. i elek.sots.sol'khoz. 17 no.4:60-61 '59. (MIL. 12:11)
(Farm mechanization) (Electricity in agriculture)

L 00973-66

ACCESSION NR: AP5019070

UR/0286/65/000/012/0096/0097
535.568.1

17
B

AUTHOR: Kovalenko, Ye. A.; Vinogradov, Ye. V.

TITLE: Apparatus for determining oxygen tension in gases and liquids. Class 42,
No. 172110

SOURCE: Byulleten' izobreteniy i tovarknykh znakov, no. 12, 1965, 96-97

TOPIC TAGS: oxygen tension, blood, sensor

ABSTRACT: An Author Certificate has been issued for an apparatus to determine oxygen tension in gases and liquids, consisting of a thermostat, a voltmeter, a galvanometer and a d-c current source. This apparatus has a sensor consisting of a platinum needle and a silver sleeve, separated by a glass capillary and arranged coaxially in a cylindrical plexiglass housing. The end of the sensor, which comes in contact with the gas or liquid, is hermetically sealed with a teflon membrane and gelatine. The device is used to measure oxygen tension in a continuous flow of respiratory gas mixture or in a liquid, such as blood (see Fig. 1 of Enclosure).
Orig. art. has: 1 figure. [JS]

Card 1/3

L 00973-66

ACCESSION NR: AP5019070

ASSOCIATION: none

SUBMITTED: 06Aug63

NO REF Sov: 000

ENCL: 01

OTHER: 000

SUB CODE: LS, ME

ATD PRESS: 4068

Card 2 / 3

L 00973-66

ACCESSION NR.: AP5019070

ENCLOSURE: 01

O

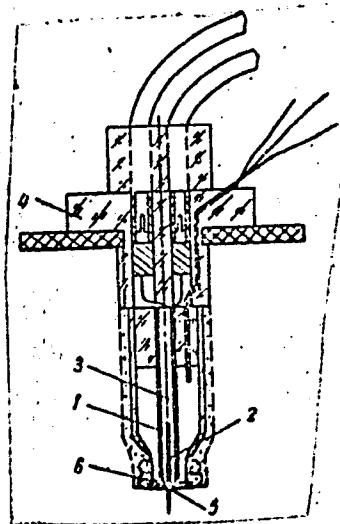


Fig. 1. Apparatus for determining oxygen tension

1 - Silver sleeve; 2 - platinum needle;
3 - glass capillary;
4 - housing; 5 - teflon membrane;
6 - gelatine.

Card 3/3

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

BARNATSKIY, V.N. (Moscow); VINOGRADOV, Ya.V. (Moscow)

Electrodes for recording the bipotentials of nerves in a
chronic experiment. Fiziol. zhurn. 49 no.11:1381-1382 N 16'.
(MIRA 17:8)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

BARNATSKIY, V.N. (Moskva); VINOGRADOV, Yo.V. (Moskva)

Gastric fistula with a device for registering bioelectric
potentials of nerves and muscles. Fiziol. zhur. 49 no.8:
1004-1005 Ag '63. (MIRA 17:2)

ACCESSION NR: AP4005820

S/0219/63/056/012/0109/0112

AUTHOR: Kovalenko, Ye. A. (Moscow); Vinogradov, Ye. V. (Moscow)

TITLE: Method for the combined study of temperature, pressure, and gas composition in the subcutaneous bullae of high-altitude tissue emphysema

SOURCE: Byul. eksper. biologii i meditsiny*, v. 56, no. 12, 1963,
109-112TOPIC TAGS: subcutaneous bulla, high altitude tissue emphysema,
subcutaneous bulla gas, emphysema simulation device, acute hypoxia

ABSTRACT: An experimental apparatus is described for simultaneous and continuous investigation of temperature, pressure, and gas composition in subcutaneous bullae of animals during induced high altitude tissue emphysema. The apparatus consists of a special combination needle, electrothermometer, vacuum burettes, three-way cock, manometer, and kymograph. The animal is placed in a fixed position in a pressure chamber containing all of the apparatus except the electrothermometer. A high altitude of not more than 47 mm Hg is simulated. As the

Card 1/2

ACCESSION NR: AP4005820

subcutaneous bullae form, their temperature and pressure are measured and their gas composition can be analyzed at any time by taking gas samples. Simultaneous investigation of all three factors in the subcutaneous bullae of animals shows that, although the temperature decreases, the gas pressure remains at a constant level. The expected decrease in vapor pressures and partial gas pressures does not take place in the bullae because new gas enters constantly from the tissues. This also contributes to intensified tissue stratification. The described apparatus can be used in various altitude investigations of laboratory animals. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 10Nov62 DATE ACQ: 20Jan64 ENCL: 00

SUB CODE: AM NO REF Sov: 001 OTHER: 000

Card 2/2

YASHKICHEV, V.I.; VINOGRADOV, Ye.Ye.

Relation between the distribution coefficient and the
heat of extraction. Radiokhimiia 5 no.1:136-137 '63.
(MIRA 16:2)

(Activity coefficients)
(Heat of extraction)

VINOGRADOV, Ye.Ye.

Extraction of boric acid with isoamyl alcohol from hydrochloric
acid solutions. Zhur.neorg.khim. 7 no.12:2813-2816 D '62.
(MIRA 16:2)

(Boric acid) (Isopentyl alcohol)

VINOGRADOV, Yu., inzhener-kapitan

At a high temperature. Tekh. i vooruzh. no. 3:48-49 Mr '64.
(MIRA 17:8)

VINOGRADOV, Yu., TATARYAN, G.

New wage scales in chemical plants. Biul. nauch. inform.:
trud i zar. plata no.10:14-20 '59. (MIRA B :6)
(Armenia--Chemical industries) (Wages) (Hours of labor)

KNYAZEV, O.; VINOGRADOV, Yu. (Leningrad)

Open letter to botanists of the Soviet Union; heritage of botanical manuscripts. Bot. zhur. 44 no.6:901-902 Je '59.
(MIRA 12:11)

(Botany)

KNYAZEV, G.; VINOGRADOV, Yu.

Archival holdings left by economic scholars. Vop.ekon.
no.9:159-160 S '59. (MIRA 12:12)
(Economics) (Archives)

VINOGRADOV, Yu.; SAMOKHINA, N.

Measuring and planning labor productivity on the basis of labor involved in basic chemistry. Biul.nauch.inform.: trud i zar.plata (MIRA 14:6)
4 no.6:14-15 '61.
(Chemical industries--Labor productivity)

VINOGRADOV, Yu.A., mlad. nauchnyy sotr.; NAGOROVA, Z.N. [deceased];
KNYAZEV, G.A., otv. red.;

[Methodological manual on the technical processing of the papers of
scholars in the Archives of the Academy of Sciences of the U.S.S.R.]
Metodicheskoe posobie po nauchno-tekhnicheskoi obrabotke fondov uche-
nykh v Arkhive AN SSSR. Moskva, Izd-vo Akad.nauk SSSR, 1960. 92 p.
(MIRA 14:11)

1. Direktor Arkhiva AN SSSR (for Knyazev).
(Archives—Handbooks, manuals, etc.)

VINOGRADOV, Yu.A.; RASKIN, N.M.

Engineer and historian of technology Dmitrii Ivanovich Kargin
(1880-1949). Trudy Inst.ist.est. i tekhn. 45:214-221 '62.
(MIRA 15:8)
(Kargin, Dmitrii Ivanovich, 1880-1949)

KNYAZEV, G.A., VINOGRADOV, Yu.A.

Letter to the editor. Zap. Vses. min. ob-va 88 no.6;734 '59.
(MIRA 13:8)

(Mineralogy) (Archives)

KNYAZEV, G.A.; VINOGRADOV, Yu.A.

Open letter to Soviet soil scientists. Pochvovedenie no.11;117
N '59. (MIRA 13:4)
(Soil research)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

KNYAZEV, G.A.; VINOGRADOV, Yu.A.

Open letter to Soviet zoologists. Zool.zhur. 38 no.9:1440
S '59. (MIR 13:1)
(Zoologists) (Archives)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

VINOGRADOV, Yuryi Aleksandrovich; ZDANOVICH, Grigoriy Andreyevich; SVET,
Ye.B., red.; KOLBICHEV, V.I., tekhn.red.

[Electrician's handbook for street lighting] V pomoshchi'
elektromonteru ulichnogo osveshcheniya. Cheliabinsk, Che-
liabinskoe knishnoe izd-vo, 1959. 176 p. (MIRA 13:?)
(Street lighting--Handbooks, manuals, etc.)

SOV/5206

PHASE I BOOK EXPLOITATION

Vinogradov, Yuryi Aleksandrovich, and Grigoriy Andreyevich Zdanovich

V pomoshch' elektromonteru ulichnogo osveshcheniya (A Guide for the
Street Lighting Electrician) [Chelyabinsk] Chelyabinskoye
knizhnoye izd-vo, 1959. 176 p. 15,000 copies printed.

Ed.: Ye. B. Svet; Tech. Ed.: V. I. Kolbichev.

PURPOSE: This book is intended for electricians engaged in mounting
and operating the installations and networks of street lighting
systems.

COVERAGE: The book is based on recently issued manuals, instructions,
technical conditions, and directives related to the operation of
street lighting networks. It contains information required in
this connection on electrical and illuminating engineering, and
discusses the following in detail: standardization of illumination,
selection of illumination means and installations, con-
struction and mounting of light sources and supports, methods

Card 1/5

A Guide for the Street (Cont.)

SOV/5206

and control circuits of street lighting, technical data on electrical equipment and electrical materials, and the organization of operations and safety measures. No personalities are mentioned. There are 9 references, all Soviet.

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Card 2/5

VINOGRADOV, Yu.A.

Adopting a better operation of air preheaters for powerful
blast furnaces. Metallurg 6 no.9:5 S '61. (MIRA 14:9)

1. Master domennogo tsekha Chelyabinskogo metallurgicheskogo
zavoda.

(Air preheaters)

VINOGRADOV, Yu.B.

Statistical analysis of hydrological phenomena recurring
several times during a year. Izv. AN Uz. SSR. Ser. tekhn.
nauk 7 no.4:53-58 '63. (MIRA 16:11)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR.

VINOGRADOV, Yu.B.

Evaluation of guarantees of hydrologic values. Izv. AN Uz.
SSR, Ser. tekhn. nauk # no.1:61-67 '64. (MIPK 17:6)

1. Institut vodnykh problem i gidrotehniki AN Uzbekskoy SSR.

VINOGRADOV, Yu.B.

Simplified method for calculating the surface rain runoff
formation of a given amount. Vop. gidrotekh. no.20:13-28 '64
(MIRA 18:1)

VINOGRADOV, Yu.B.

Compositional method for plotting warranty curves of
hydrological quantities. Izv. AN Uz.SSR.Ser.tekh.nauk
6 no.2:58-64 '62. (MIRA 15:7)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR.
(Mathematical statistics)
(Hydrology)

VINOGRADOV, Yu.B.

Calculating maximum discharges of high waters due to rain.
Dokl. AN Uz. SSR no. 9:42-44 '59. (MIRA 13:1)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR. Predstav-
leno chленом-корреспондентом AN UzSSR R.A. Alimovym.
(Runoff)

BOGDANOV G.N.; VINOGRADOV, Yu.G.; IVANOV, D.P.; KOGAN, L.B.

Increasing the resistance of cast iron chills. Lit. prciz. no.12:
24-26 D 1964. (MIRA 18:3)

VINOGRADOV, Yu.; TATARYAN, G.

Transition to a new wage system at a plastics factory. Biul.
nauch.inform.; trud i zar.plata no.8:33-39 '59.
(MIKA 13:1)

(Plastics industry--Wages)

VINOGRADOV, Yu.; TATARYAN, G.

Some results of regulating wages at the G.I. Petrovskii Plant.
Biul. nauch. inform.; trud i zar. plata no. 4:12-15 '59.

(MIRA 12:6)

(Dnepropetrovsk--Metallurgical plants) (Dnepropetrovsk--Wages)

5 (0)

AUTHORS:

Knyazev, G. A., Vinogradov, Yu. A.

SOV/62-59-8-41/42

TITLE:

Open Letter

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 8, p 1511 (USSR)

ABSTRACT:

The present article deals with the oldest scientific archives of the Soviet Union, the Arkhiv Akademii nauk SSSR (Archives of the Academy of Sciences, USSR). It comprises 450 personal funds and about a thousand collections of manuscripts of academicians, corresponding members, professors, and worthy scientists, technologists, and other scholars of the country. The majority of these men worked in the field of chemistry. The following names are mentioned: M. V. Lomonosov, N. N. Beketov, A. M. Butlerov, I. Kh. Gamel', D. P. Konovalov, N. S. Kurnakov, S. V. Lebedev, A. Ye. Favorskiy, K. Kh. Gebel', B. N. Menshutkin. Among others, Academicians V. L. Komarov and S. A. Zhebelev, Corresponding Member V. N. Beneshevich, Academician Ye. N. Pavlovskiy, Corresponding Member P. V. Yernshtedt handed over their personal records to the archives

Card 1/2

Open Letter

SOV/62-59-8-41/42

for preservation. The article concludes with an appeal for the conservation of valuable manuscripts, and readers are requested to advise the authors of the location of personal archives and manuscripts of outstanding scientists.

Card 2/2

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

VINOGRADOV, Yu. B., Cand Tech Sci -- (diss) "Method and calculation of maximum discharges of pluvial floods under the conditions of Central Asia." Tashkent, 1960. 16 pp; (Academy of Sciences Uzbek SSR, Inst of Water Problems and Hydraulics); 175 copies; price not given; (KL, 21-60, 123)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

VINOGRADOV, Yu.B.

Formation of surface runoff. Izv. AN Ukr.SSR. Ser. tekhnicheskikh no.1:
(MIRA 13:6)
57-67 '60.

1. Institut vodnykh problem i gidrotekhniki AN UkrSSR.
(Runoff)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

GORBUL'SKIY, G.F.; BOGDANOV, G.N.; VINOGRADOV, Yu.O.

Method of testing the heat resistance of materials for metal
molds. Lit. proizv. no.4:27-28 Ap '64.
(MIRA 18:7)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

NESTRAKHOV, A. S., VINOGRADOV, Yu. G.

X-ray examination of slag-removing devices in gas generators.
Gas.prom. 5 no.4:13-18 Ap '60. (MIRA 13:8)
(Gas producers)
(X rays--industrial applications)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

SHLYAPIN, V.B., kand.tekhn.nauk; VINOGRADOV, Yu.G., inzh.

Investigating the characteristics of the build-up by weaving arc
welding under flux. Trudy TSNII MPS no.260:61-81 '63.
(MIRA 16:11)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

SHAFRAZOVSKIY, A.K., kand.tekhn.nauk; VINOGRADOV, Yu.G., insh.

Use of the X-ray method for investigating the performance of
the ballast covering. Vest.TSMII MPS 19 no.4:44-47 '60.
(MIRA 13:7)

(Ballast(Railroads)--Testing)
(X rays--Industrial applications)

SHLYAPIN, V.B.; VINOGRADOV, Yu.G.; SHAKHOV, V.I.; FILIPPOVA, L.S.,
red.; DROZDOVA, N.D., tekhn. red.

[Build-up welding under flux with a vibrating arc in the
repair of rolling stock parts] Vibrodugovaya naplavka pod
fliusom detalei podvizhnogo sostava. Moskva, Transzhel-
dorizdat, 1962. 26 p. (MIRA 16:4)
(Railroads—Rolling stock—Maintenance and repair)

SHLYAPIN, V.B.; VINOGRADOV, Yu.G.; LEONT'YEV, D.V.; ROVKAKH, S.Ye.;
KOLESNICHENKO, A.N.; YEMOLAYEVA, M.I.

Using the ANKEF-1 automatic head in building up parts by the weaving
arc method. Biul.tekhn.-ekon.inform. no.12:20-21 '60.
(MIRA 13:12)
(Electric welding)

25(1); 25(6)

PHASE I BOOK EXPLOITATION

SOV/3575

Vinogradov, Yu.G., Ye.A. Greyl', M.M. Kraychik, and V.B. Shlyapin

Metody issledovaniya kachestva svarki (Methods of Quality Control
of Welded Joints), Moscow, Transzheldorizdat, 1959. 132 p.
1,200 copies printed. (Series: Vsesoyuznyy nauchno-issledo-
vatel'skiy institut zheleznodorozhnogo transporta. Trudy, vyp.
175)

Ed. (Title page): V.B. Shlyapin, Candidate of Technical Sciences;
Ed. (Inside book): A.V. Popov, Engineer; Tech. Ed.: P.A.
Khitrov.

PURPOSE: This book is intended for technical and scientific
personnel concerned with the welding of various parts and
structures.

COVERAGE: The book deals with welding defects and their detection,
as well as with mechanical testing and metallographic investiga-
tion of welded joints. There are 28 references, all Soviet.

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Methods of Quality (Cont.)**TABLE OF CONTENTS:**

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VINOGRADOV, Yu.G.; GREYL', Ye.A.; KRAYCHIK, M.M.; SHLYAPIN, V.B., kand.tekhn.
nauk; POPOV, A.V., inzh.red.; KHITROV, P.A., tekhn.red.

[Methods of welding quality control] Metody issledovaniia
kachestva svarki. Moskva, Gos.transp. zhel.-dor.izd-vo, 1959.
132 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zhelezodorozhного transporta. Trudy, no.175) (MIRA 12:8)
(Welding--Quality control)

AUTHORS: Vinogradov, Yu.G., Greyl', Ye.A. 32-24-4-23/67

TITLE: On the Quantitative Analysis With Respect to Sulfur by the Photometrization of Transparent Imprints (O kolichestvennom analize na seru putem fotometrirovaniya prozrachnykh otpechatkov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 436-437 (USSR)

ABSTRACT: A method was worked out for the determination of the distribution of sulfur in steel by means of Bauman-imprints on photographic films. After having been in a 5% sulfuric acid for 6 minutes, the film is pressed onto the previously polished sample. Pressing-on is carried out at conditions which remain continuously equal. Photometrization was carried out by means of a microphotometer MF-2 on surfaces of $3 \times 7 \text{ mm}^2$. At the same time, the average content of sulfur, phosphorus, manganese, chromium, and copper was determined from the metal shavings. It was found that the dependence of the darkening of the imprint on the content of sulfur is sufficient and genuine. Within the range investigated it may be

Card 1/2

On the Quantitative Analysis With Respect to
Sulfur by the Photometrization of Transparent
Imprints

32-34-4-23/67

considered to be rectilinear with the coefficient of regression. The correlation coefficients are given in a table in which also those for a content of various elements is taken into account. An increased correlation coefficient for phosphorus and a negative correlation coefficient of the chromium and copper content and of the darkening is observed and explained, whereas the negative sign of the correlation coefficient between the magnesium content and the darkening of the imprint remains unexplained. A formula for calculating the sulphur content in railroad lines is given. The systematic error of determination according to this method amounts to about 0.006, analysis is said to take 2-3 hours per rail-template in the case of series production. There are 1 figure, 1 table, and 6 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznozdrozhnogo transporta (All-Union Scientific Research Institute for Railroad Transport)

1. Steel 2. Sulfur--Determination 3. Sulfur--Quantitative analysis 4. Photography....Applications

Card 2/2

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2

SHAFRANOVSKIY, A.K., kand.tekhn.nauk; VINOGRADOV, Yu.G., inzh.

Using the photometric analysis of X-ray pictures for determining
ballast compaction. Trudy TSNII MPS no.217:48-55 '61.

(MIRA 15:1)

(Ballast (Railroads)--Testing) (Radiography)

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859920014-2"

S/193/60/000/012/006/018
A004/A001

AUTHORS: Shlyapin, V. B., Vinogradov, Yu. G., Leont'yev, D. V., Rovkakh, S. Ye.
Kolesnichenko, A. N., Yermolayeva, M. I.

TITLE: Vibration-Arc Build-Up of Parts With the Aid of the Automatic
AHK3Φ-1 (ANKEF-1) Head

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 12, pp.20-21

TEXT: The Tsentral'nyy nauchno-issledovatel'skiy institut putey soobshcheniya (Central Scientific Research Institute of Transport) (TsNII MPS) has developed a new method of submerged vibration arc building-up of shaft journals of the rolling stock. A thin metal layer of 0.3 - 3 mm is built up without cracks, pores and slag impurities. The building-up equipment, the special automatic ANKEF-1 head, was manufactured in cooperation with the design and planning office of the Glavstroymekhanizatsiya Ministerstva transportnogo stroitel'stva (Glavstroymekhanizatsiya of the Ministry of Transport Engineering). The part being built up is clamped in the centers of a lathe and rotates with a speed of 1-5 rpm while the metal is welded on with the ANKEF-1 head shown in the illustration. The head is actuated by the AOL-11-2 (AOL-11-2) 180 w electromotor 1 which also feeds the

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S/193/60/000/012/006/018
A004/A001

Vibration-Arc Build-Up of Parts With the Aid of the Automatic AHK3Φ-1 (ANKEP-1)
Head

electrode wire to the part and produces the vibrations with the aid of worm reducer 2. Nozzle 3 carries out oscillations parallel to ellipsoid axis. The vibrator consists of an axle and two eccentrically located bushings 4. The axis of the outer bushing is displaced relative to the inner one by 1.5 mm, so that the total eccentricity can be varied from 0 to 3 mm. The nozzle is connected to rocker 5. At the end of the axis of the eccentric mechanism a driven skew bevel wheel is mounted which is geared to the toothed wheel of the worm shaft of the reducer. The set



Card 2/3

S/193/60/000/012/006/018
A004/A001

Vibration-Arc Build-up of Parts With the Aid of the Automatic **AHK3Φ-1 (ANKEF-1)**
Head

of toothed wheels makes it possible to vary the number of nozzle oscillations in the range of 20 - 57 cps. Electrode wire feed mechanism 6 is mounted on a plate fastened to the reducer housing. The driving roll for the wire feed is made of two disks and a set of rubber rings tightened by nut 7. The electrode wire is fed to the part being built up from magazine 8. The feed speed can be varied between 57 and 236 m/hour. The ANKEF-1 head has a special prop 9 by which it is fastened to the cross slide of lathe. By the screw, connecting the head with the prop, the former can be lifted by 200 mm from its lower position. A cylindrical hinge over the screw makes it possible to tilt the head around its horizontal axis through 150°, while it can be swiveled around its vertical axis through 360°. The overall dimensions of the head (height x length x width) are 600 x 560 x 200 mm, it weighs 30 kg. For building-up operations with the ANKEF-1 heads the standard flux grades AH-348 (AN-348) or OC4-45 (OSTs-45) are used. The repair costs of parts reconditioned by building-up amount to 10 - 30% of the manufacturing costs. There is 1 figure.

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Quantitative determination sulfur by the photometry of transparent prints. Zav.lab. 24 no.4:436-437 '58. (MIRA 11:4)

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(Steel--Analysis) (Sulfur--Analysis) (Photometry)